

R E M A R K S

With reference to the communication that was mailed on July 29, 2004. Applicants gratefully acknowledge the Examiner's indication of allowable subject matter. Claims 1, 20, and 39 are amended – and claims 3, 8, 22, 27, 42, and 46 are cancelled – to comply with the Examiner's suggestion. New claims 51 and 55 are based upon the former versions of claims 1 and 39, respectively, amended to include the recitation of claim 4 and to include a feature of the invention disclosed in the last full paragraph on page 3 of the specification. New claims 52 and 56 correspond to original claims 2 and 41. New claims 53 and 54 correspond to original claims 16 and 18. No new matter has been introduced. With this Amendment, claims 1, 2, 4-7, 9-21, 23-26, 28-41, 43-45, and 47-56 are pending in the application.

The rejection of claims 8, 12, and 46 as failing to define the invention properly is obviated by this Amendment.

Various claims – not including claims 8, 27, and 46 – were rejected as being unpatentable over Michael in view of Van Lente. Other claims – likewise not including claims 8, 27, and 46 – were rejected as being unpatentable over Michael in view of Van Lente and Pugia. Inasmuch as claims 1, 2, 4-7, 9-21, 23-26, 28-41, 43-45, and 47-50 now all recite the ascorbic acid feature of claims 8, 27, and 46, none of those claims is subject to these grounds of rejection.

To the extent that the rejection over Michael in view of Van Lente might be applied to any of new claims 51-56, it is respectfully traversed. Michael does not teach the presently claimed substrate. Relevant teachings of the Michael reference are as follows:

The vehicle may be any substance which can be dried and compressed, then rewetted and re-expanded, such as sponge grade cellulose or other resilient or fibrous materials. ... The assay vehicle may be in pieces of various sizes and shapes. One preferred format is where the dried and compressed vehicle is particulate, with particle diameters of between about 1 and 40 mm. The material may be in the form of sheets, strips, shreds, discs, other decorative shapes such as stars or animal shapes, cubes, spheres, or irregular particles, among other shapes. ... An example of this kind of material is sponge grade cellulose that is available from a variety of sources. To produce a thin compressed sheet, the cellulose may be moistened and then subjected to heat and pressure until dry. When immersed in water, it quickly returns to its precompressed dimensions. ... After drying, the sheets of cellulose or other compressed vehicle can be cut to desired sizes and shapes.

Column 1, line 66 - column 3, line 55. Michael's One Step example uses a hole puncher to make ¼ inch diameter discs or a strip cutter to make ¼ inch squares of its cellulose sheets. Michael's Two Step example also uses cut squares or punched discs of compressed cellulose sponge vehicle.

Neither Michael nor Van Lente nor Puglia is suggestive of the use of "granule-like particles having a diameter of 2 – 5 mm of particulate material selected from the group consisting of wood-based beads, wood-based beads coated with titanium dioxide, wood-based beads coated with calcium carbonate, wood-based beads coated with starch, silica gel beads, quartz beads, polystyrene beads, alumino silicates, clay, and cellulose beads". It goes without saying that Michael fails to teach such diagnostic beads (2-5 mm) when the particulate material

comprises perlite. Michael teaches generically that the “material may be in the form of sheets, strips, shreds, discs, other decorative shapes such as stars or animal shapes, cubes, spheres, or irregular particles, among other shapes”, and specifically discloses ¼ inch (6.35 mm) diameter discs or squares. Van Lente provides “test strip materials which can be subdivided into pieces”. Column 2, lines 1-5. In Van Lente, “once the stripes or pieces of matrix test paper are dried, for the second dip they are then cut in sizes and shapes (diamond shape is satisfactory)”. Column 4, lines 23-27. Pugia teaches the use of “test strips”.

Clearly, the suggestion of the prior art in question is to provide relatively large, **flat** substrate for the detection composition. The term “bead” connotes a spherical body. The prior art relied upon fails to suggest the small, **spherical** beads required by the present claims.

Moreover, the thrust of the prior art disclosures is **cutting** to shape the substrate. In contrast, the presently claimed substrate is made by a granulation process.

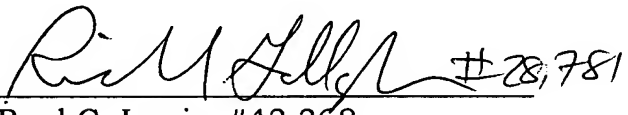
It is respectfully submitted that the inventions of new claims 51-56 cannot be found in a fair reading of the cited references, and that it is only improper hindsight – guided by Applicants’ disclosure – which could support a rejection of these claims over Michael and Van Lente. In fairness to the Examiner, it is noted that the Examiner has not rejected claims 51-56 over those references, and Applicants believe that the Examiner will agree that claims 51-56 as proposed recite features that were not fairly suggested to those of ordinary skill in the art at the time the invention was made.

The Examiner is respectfully requested to contact Richard Gallagher (Reg. No. 28,781) at (703) 205-8008 with any questions.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By  #28,781  
Paul C. Lewis, #43,368

PCL/RG/jmb

P.O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000